

Abstract

A method of manufacturing a MOS transistor is provided that achieves high-speed devices by reducing nitrogen diffusion to a silicon substrate interface due to redistribution of nitrogen and further suppressing its diffusion to a polysilicon interface, which prevents realization of faster transistors. An oxide film is exposed to a nitriding atmosphere to introduce nitrogen into the oxide film, and a thermal treatment process is performed in an oxidizing atmosphere. The thermal treatment process temperature in the oxidizing atmosphere is made equal to or higher than the maximum temperature in all the thermal treatment processes that are performed later than that thermal treatment process step.